

of the target nucleic acid and molecule includes determining the presence and absence of the marker molecule incorporated into the nucleic acid amplification products produced during the nucleic acid amplification reaction, on the basis of the evaluation results.

8. (Amended) A method according to any one of claims 1 to 5, wherein the [quantification step] quantifying of the target nucleic acid molecule includes [a step of] determining [a] the number of the labeled amplified nucleic acid [molecules] incorporated into the nucleic acid amplification products during the nucleic acid amplification reaction on the basis of the evaluation results.

R E M A R K S

The Examiner is respectfully requested to provide a Notice of References Cited Form PTO-892 which lists Clive et al. which is applied in a prior art rejection in the Office Action.

In reply to Paragraph No. 3 at the bottom of page 3 of the Office Action, the title was amended hereinabove.

The specification was editorially revised.

Claims 1 to 8 were rejected under 35 USC 112, second paragraph for the reasons set forth in Paragraph No. 5 on pages 3 to 4 of the Office Action.

The terminology of "a forward primer and a reverse primer" added to claim 1 is supported in the specification on page 35,

line 10.

The terminology of "micro detection field" introduced into claim 2 is supported in the specification in several instances such as on page 16, lines 15, 18-19 and 26.

Concerning item "d" at the top of page 4 of the Office Action, the term "autocorrelation" recited in claim 5 is specifically explained in the specification on page 32, line 25 et seq., in particular, on page 37, line 22 to page 39, line 17. Furthermore, a specific function is described in the specification on page 38.

The claims were amended to avoid the other grounds for the 35 USC 112 rejection.

It is respectfully submitted that the present claims comply with all the requirements of 35 USC 112.

Claims 1 to 8 were rejected under 35 USC 103 as being unpatentable over Mullis et al. USP 4,965,188 in view of Clive et al., J. Neurosci. Methods, 1998, Vol. 81, pp. 25-34 for the reasons set forth in Paragraph No. 7 on pages 5 to 6 of the Office Action.

The Office Action admitted that Mullis et al. do not disclose quantifying the amplified target nucleic acid based on evaluation results.

The Office Action also admitted that Mullis et al. do not disclose converting a change of the moving amount (migration distance) into statistical data based on a plurality of measurement data.

The Office Action further admitted that Mullis et al. do not disclose removing labeled substrates which are not incorporated in the amplified nucleic acid.

The Office Action contended that it is possible to quantify an amplified nucleic acid sequence by combining the methods of Mullis et al., and Clive et al. However, to detect the amplified nucleic acid sequence in this case, electrophoresis must be performed.

In contrast thereto, in the present invention, electrophoresis is not required to detect and quantify the amplified nucleic acid sequence. In this respect, the present invention differs from the methods of references. More specifically, in the present invention, it is possible to detect or quantify a specific nucleic acid by monitoring migration (distance) of a marker molecule integrated in the amplified nucleic acid sequence and quantitatively determining the migration (distance) of the nucleic acid sequence in accordance with an autocorrelation.

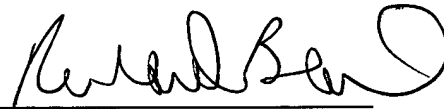
Hence, assuming *arguendo* that the references are combinable, even if the aforementioned references are combined, it is not possible to easily arrive at the present invention. It is therefore respectfully submitted that applicant's claimed invention is not rendered obvious over the references, either singly or combined in the manner relied upon in the Office Action in view of the distinctions discussed hereinabove. It is furthermore submitted that there are no teachings in the

references to combine them in the manner relied upon in the Office Action.

Reconsideration is requested. Allowance is solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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